

224



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/917,421	07/28/2001	Alan D. Ward	10960563-2	2020

7590 09/28/2004

HEW LETT-PA CKARD COMPANY
 Intellectual Property Administration
 P. O. Box 272400
 Fort Collins, CO 80527-2400

EXAMINER

BULLOCK JR, LEWIS ALEXANDER

ART UNIT	PAPER NUMBER
----------	--------------

2126

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/917,421	Applicant(s) WARD ET AL.	
	Examiner Lewis A. Bullock, Jr.	Art Unit 2126	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-37 and 42-46 is/are allowed.
- 6) ☒ Claim(s) 21,29 and 38 is/are rejected.
- 7) ☒ Claim(s) 22-28,30 and 39-41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) • | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 31-37 and 42-46 allowed.
2. Claims 22-28, 30, and 39-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
3. The following is a statement of reasons for the indication of allowable subject matter: The cited claims contain allowable subject matter at least for the following reasoning: The cited claims teach a hooks module within a computer graphics system having a graphics library that controls graphics hardware such that the hooks module is configured to attach the graphics diagnostic tool to at least one selected portion of the computer graphics system during normal operations of a currently-executing graphics application and without interruption to the normal operations of the graphics application wherein the hooks module comprises one or more event generators located within the graphics library configured to perform a diagnostic operation during the normal operations of the graphics application. The limitation of having the hooks module comprise of event generators located within the graphics library and configured to perform a diagnostic operation during the normal operations of the graphics application would allow the graphics system in real-time to provide the graphics tool access to the graphics system immediately upon the occurrence of conditions which merit such evaluation and control, such as recognition of undesirable or unanticipated system behavior (pg. 8, lines 22-28) as well as providing the graphics tool with access to

internal state and control flow of the graphics system which is otherwise unavailable to external processes. The invention also incurs minimal performance penalties due to the integration during normal operations of the graphics system and since the event generators are operationally removed from the graphics library when the hooks module is not enabled (pg. 9, lines 18-21). The prior art of record at best teaches the performance of diagnostic operations during normal operations of the graphics application on selected portions of the graphics system (Brown, Beckett). The prior art does not allude to event generators within the graphics library that controls the graphics hardware performing the diagnostic operations and communicating this performance to the diagnostic tool. Therefore, the claims are allowable over the prior art of record.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 21, 29, and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by BECKETT, II et al (U.S. Patent 5,790,798).

As to claim 21, BECKETT teaches a hooks module (monitoring module / capture module) for use in a computer graphics system (monitored system) comprising graphics

Art Unit: 2126

hardware (video display hardware) controlled by a graphics library (video driver) having graphics library functions (graphics primitives) responsive to function calls (monitoring instruction) generated by a graphics diagnostic tool (monitoring workstation) executing on the computer graphics system (monitored system) wherein the hooks module is configured to link the graphics diagnostic tool (monitoring workstation) to at least one selected portion of the computer graphics system (graphics operations of the monitored workstation) during normal operations of a currently-executing graphics application (application) and without interruption to the normal operations of the graphics application (application) (transparently sending the changes to the monitoring station which does not perceptibly interfere with the operation of the agent's workstation) (col. 2, lines 23-48; col. 4, lines 33-40; col. 4, lines 55-64; col. 5, lines 33-48; col. 5, lines 57-65; col. 6, lines 10-32; col. 7, line 35-col. 8, line 3; col. 9, line 55 – col. 10, line 6; col. 10, lines 11-33; col. 14, lines 17-22).

As to claim 29, BECKETT teaches the graphics diagnostic tool (remote monitoring workstation) and the hooks module (monitoring module / capture module) communicate with each other through a inter-process communication mechanisms providing socket communications (TCP/IP connection) between the graphics diagnostic tool and the hooks module (col. 17, lines 19-33; col. 4, lines 20-50).

As to claim 38, BECKETT teaches a computer graphics system (monitored workstation), comprising: a hooks module (monitor module / capture module) integrated

Art Unit: 2126

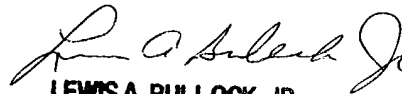
within a computer graphics system for dynamically linking a graphics diagnostic tool (monitoring workstation) to at least one selected portion of the computer graphics system (graphics operations of the monitored workstation) while a graphics application (application) is executing on the graphics system, and without interrupting the execution of the graphics application (application) (transparently sending the changes to the monitoring station which does not perceptibly interfere with the operation of the agent's workstation) (col. 2, lines 23-48; col. 4, lines 33-40; col. 4, lines 55-64; col. 5, lines 33-48; col. 5, lines 57-65; col. 6, lines 10-32; col. 7, line 35-col. 8, line 3; col. 9, line 55 – col. 10, line 6; col. 10, lines 11-33; col. 14, lines 17-22).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis A. Bullock, Jr. whose telephone number is (703) 305-0439. In late-October, the examiner can be reached at (571) 272-3759. The examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng An can be reached on (703) 305-9678. In late-October, the examiner supervisor can be reached at (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER

September 16, 2004